Contemporary Work using Bead Designs

Colour de Verre's Bead designs not only make exquisite jewelry, but can be used to create contemporary embellishments for plates, platters, bowls, and larger work.

Even though the results are impressive, this project can be broken up into a few, manageable steps.

Preparing the Molds

The molds must be primed so the glass doesn't adhere to the ceramic material from which the molds are made. There are two choices for primers: Hotline Primo™ Primer and MR-97™. The MR-97 is the easiest to apply and remove. It is an aerosol and, after firing, brushes off easily from the molds and can be washed off the pieces. Castings created using MR-97 have exceptionally smooth surfaces and almost never require grinding or "cold work."

Primo is a traditional kiln wash that is applied with an artist's brush. It's a trusted and proven product, but requires a bit more "elbow grease" to remove after firing. Primo's big advantages are it's low cost and availability.

Brief instructions for each option follow:

To apply MR-97, hold the well-shaken can 10 to 12 inches from the mold. Apply the first, light coat using a two to three-second burst of spray in a sweeping pattern across all the mold's cavities. Do not saturate the surface. If it is the first time MR-97 has been applied to this mold, it is necessary to apply a second coat of the product. Before applying the second coat, let the mold dry for five minutes. Apply the second coat using another two to three-second burst of spray. In either case, let the mold dry for ten to fifteen minutes before filling. Again, the double coat of MR-97 need be only applied the first time. Thereafter, only one coat is necessary. For more information about MR-97, visit Colour de Verre website's Learn section. There, download and read *Advanced Priming with Boron Nitride Aerosol*.

If you choose to use Primo Primer, give your mold three to four thin, even coats of Hotline Primo Primer kiln wash. Use a soft artist brush to apply the Primo Primer and a hair dryer to completely dry each coat before applying the next. Again, more detailed instructions can be found in the Learn section of Colour de Verre's website. See *Tricks of the Trade*. When using Primo Primer, best results are obtained when using fine frit. Larger frit can produce excessive casting spurs that require cold work and refiring.

Filling the molds

Frit can either be used straight from the manufacturer's container or blended. However, we find the best results are usually obtained by "diluting" colored frit with clear frit. Even dark, opaque colors like

Availability

Colour de Verre molds are available at fine glass retailers and many online merchants including our online store, www.colourdeverre.com.

Tools

- ✓ Small Ring, Simple Round, Geometric, and/or Tribal Bead molds
- ✓ Digital scale
- ✓ Measuring spoons
- ✓ Bowl or plate slumping form

Supplies

- ✓ Primo Primer or MR-97
- ✓ Assorted fine and/or medium frit
- ✓ Double-thick clear or two pieces of sheet glass
- ✓ Firing paper (ThinFire™)

blacks and browns become much more rich when mixed with clear frit. (See our document *Creating Frit "Paint Chips"*) It is important to remember that, when using frit, to wear a dusk mask.

Fill each cavity according to the chart below. Rather than filling the Tribal Bead mold evenly, best results can be obtained by slightly tapering the frit's level in the design. The frit should be "deeper" in the rounded portion of the design. In the case of all other beads, it is best to use a small artist's brush to evenly level the frit.

Design	Grams of Frit per Cavity
Tribal Beads	Small - 5 Gram Medium - 7 Grams Large - 9 Grams
Geometric Beads	Both designs - 6 Grams each
Simple Round Beads	Small - 7 Gram Medium - 9 Grams Large - 17 Grams
Small Ring Beads	3 to 4 Grams

Place the filled molds on a *leveled* kiln shelf and fire according to the Firing Schedule shown below.

Making the Panel

The next step: Create a panel from double thick, clear glass or from two sheets of single thickness glass. This will become the basis for the bowl, platter, or plate. The size of the panel will depend your design and the size of your favorite slump mold.

Firing Schedule (Tribal and Geometric)*

Segment	Ramp	Temperature	Hold
1	300°F/165°C	1400°F (760°C)	5-10 minutes for fine frit 15-20 minutes for medium frit
2	AFAP	960°F/515°C	30 minutes. Off

Firing Schedule (Simple Round and Small Ring)*

Segment	Ramp	Temperature	Hold
1	300°F/165°C	1420°F (770°C)	10 minutes for fine frit 20-25 minutes for medium frit 25-35 minutes for coarse frit
2	AFAP	960°F/515°C	30 minutes. Off

Sheet Glass Smoothing/Fusing Schedule*

Segment	Ramp	Temperature	Hold
1	350°F/195°C	1400-1420°F/760-770°C	10-20 minutes
2	AFAP	960°F/515°C	60 minutes
3	100°F/60°C	700°F/370°C	Off. No venting

Bead Tacking Schedule*

Segment	Ramp	Temperature	Hold
1	350°F/195°C	1300-1320°F/705-715°C	10-20 minutes
2	AFAP	960°F/515°C	60 minutes
3	100°F/60°C	600°F/315°C	Off. No venting

Slumping Schedule*

Segment	Ramp	Temperature	Hold
1	200°F/110°C	1220-1250°F/660-675°C	10-20 minutes
2	AFAP	960°F/515°C	60 minutes
3	50°F/30°C	800°F/425°C	None
4	100°F/60°C	600°F/315°C	Off. No venting

*Schedule for COE 96. For COE 90, increase casting temperature by 25°F/15°C. AFAP means "As Fast As Possible", no venting.

Place your glass in the kiln on a smooth shelf protected with kiln paper or kiln wash. Use the Sheet Glass Smoothing/Fusing Schedule as a guide. In the same firing, if you wish, create frit balls nipping small pieces of rods. (More detailed instructions can be found in "Serpentine Basics.")

When the panel has cooled, place it on your workbench. Layout your beads and arrange the frit balls in and around the beads in a pleasing pattern. Use small dabs of white glue (or extra-hold hair spray) to temporarily hold the elements in place.

Place the panel on a protected kiln shelf and fire according to the Bead Tacking Schedule below.

When the piece has cooled, check to see if all elements are fastened. Next, place the piece in a primed slumping mold. Tacked elements can either be face up or face down. Fire according to the Slumping Schedule. Don't skimp on the annealing and cooling cycles. The finished pieces has both very thick and thin sections and needs to heat and cool slowly.

In the above piece, the panel was slumped with the tack fused beads down. This way the piece can be functional, but still aesthetically interesting.